09/266,935

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=> file biosis medline caplus wpids uspatfull SINCE FILE TOTAL COST IN U.S. DOLLARS ENTRY SESSION 28.89 28.68 FULL ESTIMATED COST FILE 'BIOSIS' ENTERED AT 09:20:42 ON 01 APR 2004 COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R) FILE 'MEDLINE' ENTERED AT 09:20:42 ON 01 APR 2004 FILE 'CAPLUS' ENTERED AT 09:20:42 ON 01 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'WPIDS' ENTERED AT 09:20:42 ON 01 APR 2004 COPYRIGHT (C) 2004 THOMSON DERWENT FILE 'USPATFULL' ENTERED AT 09:20:42 ON 01 APR 2004 CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS) *** YOU HAVE NEW MAIL *** => s nucleic acid (3a) synthes? am polymerase activity 4 FILES SEARCHED... O NUCLEIC ACID (3A) SYNTHES? AM POLYMERASE ACTIVITY => s nucleic acid (3a) synthes? and polymerase activity 3 FILES SEARCHED.. 786 NUCLEIC ACID (3A) SYNTHES? AND POLYMERASE ACTIVITY => s 15 and methylimidazole 15 L5 AND METHYLIMIDAZOLE => dup rem 16 PROCESSING COMPLETED FOR L6 15 DUP REM L6 (0 DUPLICATES REMOVED) => d 17 bib abs 1-15 ANSWER 1 OF 15 USPATFULL on STN 2004:70644 USPATFULL AN TINew sequences Kvist, Sune, Koping, SWEDEN IN Strandberg, Bror, Uppsala, SWEDEN Α1 20040318 PΙ US 2004053872 20030331 (10) US 2003-362676 A1AΙ 20010822 WO 2001-SE1791 20000822 SE 2000-3002 PRAI DTUtility APPLICATION FS BURNS DOANE SWECKER & MATHIS L L P, POST OFFICE BOX 1404, ALEXANDRIA, LREP VA, 22313-1404 Number of Claims: 17 CLMN Exemplary Claim: 1 ECL 12 Drawing Page(s) DRWN LN.CNT 1173 A nucleic acid molecule which interacts with reverse transcriptase of a AB retrovirus. The nucleic acid molecule comprises a nucleotide sequence essentially composed of two stem-loop structures and a short bridge

between the stems, which molecule for the purposes of the interaction

1.7

AN

ANSWER 2 OF 15 USPATFULL on STN

2004:70060 USPATFULL

APPLICATION

FS

with reverse transcriptase is analogous to the dihydrouridine (D)-stem-loop and anti-codon (A)-stem-loop of a mammalian transfer RNA (tRNA). Optionally, in the nucleic acid molecule, some or all of the normal phosphodiester nucleoside linkages have been substituted with phosphorothicate linkages. The invention further relates to the use of said nucleic acid molecule for the manufacture of a medicament for the inhibition of the interaction of HIV-1 and HIV-2 reverse transcriptase with tRNA.sup.Lys3.

```
Reagents for monitoring nucleic acid amplification and methods of using
TI
       Lawler, Joseph F., JR., Baltimore, MD, UNITED STATES
IN
                               20040318
PI
       US 2004053287
                          Α1
                               20030409 (10)
       US 2003-409043
                          Α1
AΙ
                           20020422 (60)
       US 2002-374479P
PRAI
DT
       Utility
       APPLICATION
FS
       SMITH PATENT CONSULTING CONSULTING, LLC, P.O. BOX 2726, ALEXANDRIA, VA,
LREP
       Number of Claims: 22
CLMN
       Exemplary Claim: 1
ECL
       6 Drawing Page(s)
DRWN
LN.CNT 1198
       Described herein are novel indicator molecules of general formula (1):
AB
       ##STR1##
       wherein Q, F, N, Nuc, X.sub.1 and X.sub.2 are as defined herein,
       including their tautomeric forms and their additive salts. The present
       invention also concerns methods for the use of these molecules to
       monitor nucleic acid amplification in real time and their applications
       as diagnostics.
L7
     ANSWER 3 OF 15 USPATFULL on STN
       2004:64489 USPATFULL
AN
       Templated molecules and methods for using such molecules
TI
       Pedersen, Henrik, Bagsvaerd, DENMARK
IN
       Gouilaev, Alex Haahr, Vesko Sjaelland, DENMARK
       Franch, Thomas, Odense C, DENMARK
       Sams, Christian Klarner, Frederiksberg C, DENMARK
       Olsen, Eva Kampmann, Herlev, DENMARK
       Slok, Frank Abilgaard, Kobenhavn N, DENMARK
       Husemoen, Gitte Nystrup, Kobenhavn N, DENMARK
       Felding, Jakob, Charlottenlund, DENMARK
       Hyldtoft, Lene, Virum, DENMARK
       Norregaard-Madsen, Mads, Birkerod, DENMARK
       Godskesen, Michael Anders, Vedbaek, DENMARK
       Glad, Sanne Schroder, Ballerup, DENMARK
       Thisted, Thomas, Frederikssund, DENMARK
       Freskgard, Per-Ola, Vellinge, SWEDEN
       Holtmann, Anette, Ballerup, DENMARK
       Nuevolution A/S, Copenhagen, DENMARK (non-U.S. corporation)
PA
                                20040311
PI
       US 2004049008
                          Α1
       US 2002-175539
                          Α1
                                20020620 (10)
ΑI
       DK 2001-962
                           20010620
PRAI
       US 2001-299443P
                            20010621 (60)
       US 2002-364056P
                            20020315 (60)
DT
       Utility
```

DT

```
BROWDY AND NEIMARK, P.L.L.C., 624 NINTH STREET, NW, SUITE 300,
LREP
       WASHINGTON, DC, 20001-5303
       Number of Claims: 316
CLMN
       Exemplary Claim: 1
ECL
DRWN
       100 Drawing Page(s)
LN.CNT 11215
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates to a method for synthesising templated
       molecules. In one aspect of the invention, the templated molecules are
       linked to the template which templated the synthesis thereof. The intion
       allows the generation of libraries which can be screened for e.g.
       therapeutic activity.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 4 OF 15 USPATFULL on STN
Ь7
       2004:19340 USPATFULL
AN
       Oligonucleotide analogues and methods of use for modulating gene
ΤI
       expression
       Efimov, Vladimir, Moscow, RUSSIAN FEDERATION
IN
       Fernandez, Joseph, Carlsbad, CA, UNITED STATES
       Archdeacon, Dorothy, Carlsbad, CA, UNITED STATES
       Archdeacon, John, Carlsbad, CA, UNITED STATES
       Choob, Mikhail, Carlsbad, CA, UNITED STATES
                               20040122
       US 2004014644
                          Α1
PI
                               20030207 (10)
                          Α1
ΑI
       US 2003-360275
       Continuation-in-part of Ser. No. US 2002-72975, filed on 9 Feb 2002,
RLI
       PENDING Continuation-in-part of Ser. No. US 2001-805296, filed on 13 Mar
       2001, PENDING
       US 2000-189190P
                           20000314 (60)
PRAI
                           20001130 (60)
       US 2000-250334P
DT
       Utility
FS
       APPLICATION
       DAVID R PRESTON & ASSOCIATES, 12625 HIGH BLUFF DRIVE, SUITE 205, SAN
LREP
       DIEGO, CA, 92130
       Number of Claims: 64
CLMN
       Exemplary Claim: 1
ECL
       22 Drawing Page(s)
DRWN
LN.CNT 7290
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates generally to oligonucleotide analogues
AB
       that include novel protein nucleic acid molecules (PNAs), particularly
       monomers, dimers, oligomers thereof and methods of making and using
       these oligonucleotide analogues. The PNAs of the present invention are
       characterized as including a variety of classes of molecules, such as,
       for example, hydroxyproline peptide nucleic acids (HypNA), and serine
       peptide nucleic acids (SerNA). The present invention also includes the
       use of oligonucleotides of the present invention in antisense and
       homologous recombination constructs and methods.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 5 OF 15 USPATFULL on STN
1.7
       2004:7373 USPATFULL
AN
       Non-fluorescent quencher compounds and biomolecular assays
TΙ
       Ewing, Gregory J., Sunnyvale, CA, UNITED STATES
ΤN
       Mullah, Khairuzzaman Bashar, Union City, CA, UNITED STATES
       Graham, Ronald J., San Ramon, CA, UNITED STATES
                                20040108
ΡI
       US 2004005607
                          Α1
                          Α1
                                20030430 (10)
AΙ
       US 2003-425674
       Continuation of Ser. No. US 2001-942342, filed on 27 Aug 2001, PENDING
RLI
```

FS

LREP

APPLICATION

APPLICATION FS DORSEY & WHITNEY LLP, 1001 PENNSYLVANIA AVENUE, N.W., SUITE 400 SOUTH, LREP WASHINGTON, DC, 20004 Number of Claims: 1 CLMN Exemplary Claim: 1 ECLNo Drawings DRWN LN.CNT 2504 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Bis-diazo, triaryl and aryldiazo-N-arylphenazonium quencher moieties, AB substituted with electron-withdrawing and electron-donating substituents which induce polarity in the delocalized aryl/diazo ring systems, are useful as labels when attached to biomolecules such as polynucleotides, nucleosides, nucleotides, and polypeptides. The quencher moieties are non-fluorescent and accept energy from fluorescent reporter labels by any energy-transfer mechanism, such as FRET. Fluorescence quencher compositions are useful in preparing quencher labelled biomolecules for various molecular biology assays based on fluorescence detection. ##STR1## CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 6 OF 15 USPATFULL on STN L7 2003:282637 USPATFULL ANHeteroconfigurational polynucleotides and methods of use TIGreenfield, I. Lawrence, San Mateo, CA, UNITED STATES IN Matysiak, Stefan M., Montara, CA, UNITED STATES Schroeder, Benjamin, San Mateo, CA, UNITED STATES Vinayak, Ravi, Mountain View, CA, UNITED STATES PAApplera Corporation, Foster City, CA (U.S. corporation) US 2003198980 **A**1 20031023 PΙ US 2002-328307 20021223 (10) AΙ A1 US 2001-343519P 20011221 (60) PRAT Utility DTAPPLICATION FS MILA KASAN, PATENT DEPT., APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE, LREP FOSTER CITY, CA, 94404 Number of Claims: 85 CLMN Exemplary Claim: 1 ECL DRWN 12 Drawing Page(s) LN.CNT 2223 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Methods, compositions and kits are disclosed that utilize AB heteroconfigurational polynucleotide comprising a D-form polynucleotide sequence portion and an L-form polynucleotide sequence portion that is covalently linked to the D-form polynucleotide sequence portion. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L7 ANSWER 7 OF 15 USPATFULL on STN AN 2003:271032 USPATFULL RNA interference mediated treatment of Alzheimer's disease using short TI interfering RNA McSwiggen, James A., Boulder, CO, UNITED STATES IN A1 20031009 PТ US 2003190635 AΙ US 2002-205309 A1 20020725 (10) US 2002-358580P 20020220 (60) PRAI US 2002-363124P 20020311 (60) US 2002-386782P 20020606 (60) DTUtility

MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE

CLMN

ECL

3200, CHICAGO, IL, 60606 Number of Claims: 36

Exemplary Claim: 1

```
8 Drawing Page(s)
DRWN
LN.CNT 4083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns methods and reagents useful in modulating
       gene expression in a variety of applications, including use in
       therapeutic, diagnostic, target validation, and genomic discovery
       applications associated with Alzheimer's disease. Specifically, the
       invention relates to small interfering RNA (siRNA) molecules capable of
       mediating RNA interference (RNAi) against beta-secretase (BACE), PIN-1,
       presenillin-1 (PS-1) and presenillin-2 (PS-2) polypeptide and
       polynucleotide targets.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 8 OF 15 USPATFULL on STN
L7
       2003:120077 USPATFULL
AN
       Polymerase extension at 3' terminus of PNA-DNA chimera
TI
       Egholm, Michael, Woodbridge, CT, UNITED STATES
IN
       Chen, Caifu, Palo Alto, CA, UNITED STATES
       PE Corporation (NY), Foster City, CA, 94404 (U.S. corporation)
PA
PΙ
       US 2003082558
                         A1
                               20030501
                               20011024 (10)
                         Α1
AΙ
       US 2001-45621
       Continuation of Ser. No. US 1999-373845, filed on 13 Aug 1999, GRANTED,
RLI
       Pat. No. US 6316230
       Utility
DT
FS
       APPLICATION
       PATTI SELAN, PATENT ADMINISTRATOR, APPLIED BIOSYSTEMS, 850 LINCOLN
LREP
       CENTRE DRIVE, FOSTER CITY, CA, 94404
       Number of Claims: 45
CLMN
       Exemplary Claim: 1
ECL
DRWN
       17 Drawing Page(s)
LN.CNT 1597
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides methods and a kit for primer extension of PNA-DNA
AB
       chimera from template nucleic acids using polymerases, nucleotide
       5'-triphosphates, and primer extension reagents. Structural requirements
       of the chimera for primer extension include 5 to 15 contiguous PNA
       monomer units, 3 or more contiguous nucleotides, and a 3' hydroxyl
       terminus. The chimera and/or a nucleotide is labelled with fluorescent
       dyes or other labels. The methods include DINA sequencing, DNA fragment
       analysis, reverse transcription, mini-sequencing, chromosome labelling,
       amplification, and single nucleotide polymorphism (SNP) detection.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 9 OF 15 USPATFULL on STN
L7
AN
       2003:120064 USPATFULL
       Non-fluorescent quencher compounds and biomolecular assays
TI
       Ewing, Gregory J., Sunnyvale, CA, UNITED STATES
IN
       Mullah, Khairuzzaman Bashar, Union City, CA, UNITED STATES
       Graham, Ronald J., San Ramon, CA, UNITED STATES
       US 2003082547
                          A1
                               20030501
PΙ
AΙ
       US 2001-942342
                          A1
                               20010827 (9)
       Utility
DT
       APPLICATION
FS
       MILA KASAN, PATENT DEPT., APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE,
LREP
       FOSTER CITY, CA, 94404
CLMN
       Number of Claims: 75
       Exemplary Claim: 1
ECL
```

DRWN No Drawings

LN.CNT 2856

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Bis-diazo, triaryl and aryldiazo-N-arylphenazonium quencher moieties, substituted with electron-withdrawing and electron-donating substituents which induce polarity in the delocalized aryl/diazo ring systems, are useful as labels when attached to biomolecules such as polynucleotides, nucleosides, nucleotides, and polypeptides. The quencher moieties are non-fluorescent and accept energy from fluorescent reporter labels by any energy-transfer mechanism, such as FRET.

Fluorescence quencher compositions are useful in preparing quencher labelled biomolecules for various molecular biology assays based on fluorescence detection. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L7
     ANSWER 10 OF 15 USPATFULL on STN
       2003:86184 USPATFULL
AN
       Oligonucleotide analogues, methods of synthesis and methods of use
TΙ
       Efimov, Vladimir, Moscow, RUSSIAN FEDERATION
IN
       Fernandez, Joseph, Carlsbad, CA, UNITED STATES
       Archdeacon, Dorothy, Carlsbad, CA, UNITED STATES
       Archdeacon, John, Carlsbad, CA, UNITED STATES
       Chakhmakhcheva, Oksana, Moscow, RUSSIAN FEDERATION
       Buryakova, Alla, Moscow, RUSSIAN FEDERATION
       Choob, Mikhail, Carlsbad, CA, UNITED STATES
       Hondorp, Kyle, Carlsbad, CA, UNITED STATES
PΙ
       US 2003059789
                          Α1
                               20030327
```

AI US 2002-72975 A1 20020209 (10) RLI Continuation-in-part of Ser. No. US 2

RLI Continuation-in-part of Ser. No. US 2001-805296, filed on 13 Mar 2001, PENDING

PRAI WO 2001-US811 20010313 US 2000-189190P 20000314 (60) US 2000-250334P 20001130 (60)

DT Utility

FS APPLICATION

LREP DAVID R PRESTON & ASSOCIATES, 12625 HIGH BLUFF DRIVE, SUITE 205, SAN DIEGO, CA, 92130

CLMN Number of Claims: 29 ECL Exemplary Claim: 1 DRWN 9 Drawing Page(s)

LN.CNT 6749

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates generally to oligonucleotide analogues ABthat include novel protein nucleic acid molecules (PNAs), particularly monomers, dimers, oligomers thereof and methods of making and using these oligonucleotide analogues. The PNAs of the present invention are characterized as including a variety of classes of molecules, such as, for example, hydroxyproline peptide nucleic acids (HypNA), and serine peptide nucleic acids (SerNA). The invention includes monomers, homodimers, heterodimers, homopolymers and heteropolymers of these and other oligonucleotide analogues. The present invention includes methods of using these oligonucleotide analogues in the detection and separating of nucleic acid molecules, including uses that include the utilization of oligonucleotide analogues on a solid support. The present invention also includes methods for purifying or separating nucleic acids, such as mRNA molecules, by hybridization with the oligonucleotides of the present invention. The present invention also includes the use of oligonucleotides of the present invention in antisense and homologous recombination constructs and methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L7
     ANSWER 11 OF 15 USPATFULL on STN
AN
       2003:79305 USPATFULL
       Gradient resolved information platform
TI
       Krull, Ulrich J., Mississauga, CANADA
IN
PI
       US 2003055233
                         Α1
                               20030320
                               20020418 (10)
AΙ
       US 2002-126504
                         Α1
       US 2001-284715P
                          20010418 (60)
PRAI
DT
       Utility
       APPLICATION
FS
LREP
       GREENLEE WINNER AND SULLIVAN P C, 5370 MANHATTAN CIRCLE, SUITE 201,
       BOULDER, CO, 80303
       Number of Claims: 84
CLMN
       Exemplary Claim: 1
ECL
DRWN
       4 Drawing Page(s)
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides improved methods and devices for the detection
```

and identification in a sample of one or more target molecules which bind to probe molecules, particularly to nucleic acid probe molecules. The improved method is based on contacting the sample with a surface that is coated with one or more gradients of probe molecules, particlarly nucleic acid or nucleic acid analog probe molecules that serve to bind target molecules in the sample, particularly nucleic acids having sequences that are complementary or partially complementary to one or more probe molecules. A probe gradient generated on the surface is formed by the variation of a physical, structural or functional property of the probes on the surface. The gradient is generated, e.g., by varying density of probe molecules bound to the surface, by varying probe sequence length, by varying probe sequence, by varying probe sequence type, by varying the orientational structure of probes, and by varying the concentration of label associated with probes. Determination of the location, speed and/or extent of hybridisation of a nucleic acid on such a gradient surface is useful to identify target molecules bound to probes and/or to quantitatively measure the amount of the target in a sample. Hybridisation of target molecules to a gradient of nucleic acid probe can be examined as a function of time and/or hybridisation conditions (e.g., temperature, salt concentration, etc.) The methods and devices of this invention employ gradient surfaces to bind to one or more target molecules, particularly nucleic acids (or target sequences) in a sample, detecting their presence in the sample and quantitating the amount of one or more of such targets in a sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 12 OF 15 USPATFULL on STN
L7
       2002:322438 USPATFULL
ΑN
TI
       Mobility-modified nucleobase polymers and methods of using same
       Woo, Sam L., Redwood City, CA, UNITED STATES
IN
       Graham, Ron, San Ramon, CA, UNITED STATES
       Tian, Jing, Mountain View, CA, UNITED STATES
PΙ
       US 2002182602
                         Α1
                               20021205
ΑI
       US 2001-836704
                          A1
                               20010416 (9)
       Utility
DT
FS
       APPLICATION
       PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711
LREP
CLMN
       Number of Claims: 60
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 3548
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

The present invention relates generally to nucleobase polymer AB functionalizing reagents, to mobility-modified sequence-specific nucleobase polymers, to compositions comprising a plurality of mobility-modified sequence-specific nucleobase polymers, and to the use of such polymers and compositions in a variety of assays, such as, for example, for the detection of a plurality of selected nucleotide sequences within one or more target nucleic acids. The mobility-modifying polymers of the present invention include phosphoramidite reagents which can be joined to other mobility-modifying monomers and to sequence-specific oligonucleobase polymers via uncharged phosphate triester linkages. Addition of the mobility-modifying phosphoramidite reagents of the present invention to oligonucleobase polymers results in unexpectedly large effects the mobility of those modified oligonucleobase polymers, especially upon capillary electrophoresis in non-sieving media.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 13 OF 15 USPATFULL on STN
L7
       2002:280544 USPATFULL
ΑN
       Oligonucleotide analogues, methods of synthesis and methods of use
TI
       Efimov, Vladimir, Moscow, RUSSIAN FEDERATION
IN
       Fernandez, Joseph, Carlsbad, CA, UNITED STATES
       Archdeacon, Dorothy, Carlsbad, CA, UNITED STATES
       Archdeacon, John, Carlsbad, CA, UNITED STATES
       Chakhmakhcheva, Oksana, Moscow, RUSSIAN FEDERATION
       Buryakova, Alla, Moscow, RUSSIAN FEDERATION
       Choob, Mikhail, Carlsbad, CA, UNITED STATES
       Hondorp, Kyle, Carlsbad, CA, UNITED STATES
                               20021024
PΙ
       US 2002155989
                          A1
                               20010313 (9)
ΑI
       US 2001-805296
                          A1
       US 2000-189190P
                           20000314 (60)
PRAI
                           20001130 (60)
       US 2000-250334P
DΤ
       Utility
       APPLICATION
FS
       DAVID R PRESTON & ASSOCIATES, 12625 HIGH BLUFF DRIVE, SUITE 205, SAN
LREP
       DIEGO, CA, 92130
       Number of Claims: 96
CLMN
ECL
       Exemplary Claim: 1
DRWN
       8 Drawing Page(s)
LN.CNT 5883
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates generally to oligonucleotide analogues
```

that include novel protein nucleic acid molecules (PNAs), particularly monomers, dimers, oligomers thereof and methods of making and using these oligonucleotide analogues. The PNAs of the present invention are characterized as including a variety of classes of molecules, such as, for example, hydroxyproline peptide nucleic acids (HypNA), and serine peptide nucleic acids (SerNA). The invention includes monomers, homodimers, heterodimers, homopolymers and heteropolymers of these and other oligonucleotide analogues. The present invention includes methods of using these oligonucleotide analogues in the detection and separating of nucleic acid molecules, including uses that include the utilization of oligonucleotide analogues on a solid support. The present invention also includes methods for purifying or separating nucleic acids, such as mRNA molecules, by hybridization with the oligonucleotides of the present invention. The present invention also includes the use of oligonucleotides of the present invention in antisense and homologous recombination constructs and methods.

```
ANSWER 14 OF 15 USPATFULL on STN
L7
       2001:202419 USPATFULL
AN
       Polymerase extension at 3' terminus of PNA-DNA chimera
TΤ
       Egholm, Michael, Wayland, MA, United States
IN
       Chen, Caifu, Brookline, MA, United States
       Applera Corporation, Foster City, CA, United States (U.S. corporation)
PA
                               20011113
       US 6316230
                         В1
PΤ
                               19990813 (9)
       US 1999-373845
ΑI
DT
       Utility
FS
       GRANTED
      Primary Examiner: Riley, Jezia
EXNAM
       Andrus, Alex
LREP
       Number of Claims: 43
CLMN
       Exemplary Claim: 1
ECL
       20 Drawing Figure(s); 17 Drawing Page(s)
DRWN
LN.CNT 1634
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides methods and a kit for primer extension of PNA-DNA
       chimera from template nucleic acids using polymerases, nucleotide
       5'-triphosphates, and primer extension reagents. Structural requirements
       of the chimera for primer extension include 5 to 15 contiguous PNA
       monomer units, 3 or more contiguous nucleotides, and a 3' hydroxyl
       terminus. The chimera and/or a nucleotide is labelled with fluorescent
       dyes or other labels. The methods include DNA sequencing, DNA fragment
       analysis, reverse transcription, mini-sequencing, chromosome labelling,
       amplification, and single nucleotide polymorphism (SNP) detection.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 15 OF 15 USPATFULL on STN
L7
ΑN
       1998:157096 USPATFULL
       Blocked-polymerase polynucleotide immunoassay method and kit
ΤI
       Cashman, Daniel P., 2222 Francisco Dr., Suite 510-121, El Dorado Hills,
IN
       CA, United States 95762
                               19981215
       US 5849478
PI
                               19921224 (7)
       US 1992-996793
AΙ
       Continuation-in-part of Ser. No. US 1990-508259, filed on 1 Apr 1990,
RLI
       now abandoned Ser. No. Ser. No. US 1988-272648, filed on 17 Nov 1988,
       now abandoned And Ser. No. US 1986-897142, filed on 14 Aug 1986, now
       abandoned
       Utility
DT
       Granted
FS
       Primary Examiner: Jones, W. Gary; Assistant Examiner: Marschel, Ardin H.
EXNAM
       Number of Claims: 10
CLMN
       Exemplary Claim: 1
ECL
       8 Drawing Figure(s); 4 Drawing Page(s)
DRWN
LN.CNT 2096
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       An immunoassay method for detecting an analyte in a liquid sample is
AB
       disclosed. The method includes first contacting the sample with a
       polynucleotide assay reagent composed of a analyte and an attached
       polynucleotide containing an initiation region adjacent the site of
       attachment to the analyte. The sample is reacted with a polymerase and
       nucleotide triphosphates, to determine the amount of immunocomplex
       formed between the analyte and the analyte under conditions effective to
       copy the polynucleotide only if its initiation region is not blocked.
       The assay mixture is then assayed for the presence of phosphate or
       pyrophosphate. An immunoassay kit for detecting an analyte in a liquid
       sample is also disclosed.
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 09:20:42 ON
     01 APR 2004
              O S NUCLEIC ACID (3A) SYNTHES? AM POLYMERASE ACTIVITY
T<sub>1</sub>4
            786 S NUCLEIC ACID (3A) SYNTHES? AND POLYMERASE ACTIVITY
1.5
             15 S L5 AND METHYLIMIDAZOLE
L6
             15 DUP REM L6 (0 DUPLICATES REMOVED)
T.7
=> s 15 and methylmorpholine
             3 L5 AND METHYLMORPHOLINE
L8
=> dup rem 18
PROCESSING COMPLETED FOR L8
              3 DUP REM L8 (0 DUPLICATES REMOVED)
=> d 19 bib abs 1-3
     ANSWER 1 OF 3 USPATFULL on STN
L9
       2003:222022 USPATFULL
AN
       Methods, kits and compositions pertaining to detection complexes
ΤI
       Coull, James M., Westford, MA, United States
IN
       Gildea, Brian D., Billerica, MA, United States
       Hyldig-Nielsen, Jens J., Holliston, MA, United States
       Boston Probes, Inc., Bedford, MA, United States (U.S. corporation)
PA
                          B1
                                20030819
       US 6607889
PΙ
                                20010529 (9)
       US 2001-867345
ΑI
       Continuation of Ser. No. US 1999-275848, filed on 24 Mar 1999, now
RLI
       patented, Pat. No. US 6361942
                           19980324 (60)
       US 1998-79211P
PRAI
       Utility
DT
       GRANTED
FS
       Primary Examiner: Riley, Jezia
EXNAM
       Gildea, Brian D.
LREP
       Number of Claims: 75
CLMN
       Exemplary Claim: 1
ECL
       23 Drawing Figure(s); 20 Drawing Page(s)
DRWN
LN.CNT 4836
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       This invention is directed to methods, kits and compositions which
AB
       utilize Detection Complexes to detect or identify the presence, absence
       or quantity of a target molecule in a sample of interest. A Detection
       Complex comprises at least two component polymers and at least one set
       of donor and acceptor moieties. To each of at least two component
       polymers is linked at least one moiety of a set of donor and acceptor
       moieties, such that formation of the complex facilitates transfer of
       energy between donor and acceptor moieties of each set in a manner
       which, in an assay, produces changes in detectable signal which can be
       correlated with the presence absence of quantity of target sequence
       and/or target molecule of interest in the sample.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 2 OF 3 USPATFULL on STN
T.9
       2002:63681 USPATFULL
ΑN
       Method, kits and compositions pertaining to detection complexes
TТ
       Coull, James M., Westford, MA, United States
TN
       Gildea, Brian D., Billerica, MA, United States
       Hyldig-Nielsen, Jens J., Holliston, MA, United States
       Boston Probes, Inc., Bedford, MA, United States (U.S. corporation)
PΑ
                           B1
                                20020326
ΡI
       US 6361942
       US 1999-275848
                                19990324 (9)
AΙ
PRAI
       US 1998-79211P
                            19980324 (60)
DT
       Utility
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FS GRANTED EXNAM Primary

M Primary Examiner: Marschel, Ardin H.

LREP Gildea, Brian D.

CLMN Number of Claims: 102 ECL Exemplary Claim: 1

DRWN 23 Drawing Figure(s); 20 Drawing Page(s)

LN.CNT 5022

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

This invention is directed to methods, kits and compositions which utilize Detection Complexes to detect or identify the presence, absence or quantity of a target molecule in a sample of interest. A Detection Complex comprises at least two component polymers and at least one set of donor and accepter moieties. To each of at least two component polymers is linked at least one moiety of a set of donor and accepter moieties, such that formation of the complex facilitates transfer of energy between donor and acceptor moieties of each set in a manner which, in an assay, produces changes in detectable signal which can be correlated with the presence absence of quantity of target sequence and/or target molecule of interest in the sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 3 USPATFULL on STN

AN 1999:128751 USPATFULL

TI Oligonucleotide analogs with an amino acid or a modified amino alcohol residue

IN Ramasamy, Kandasamy, Laguna Hills, CA, United States Seifert, Wilfried E., La Jolla, CA, United States

PA ICN Pharmaceuticals, Inc., Costa Mesa, CA, United States (U.S.

corporation)

PI US 5969135

19991019

AI US 1995-551947

19951102 (8)

DT Utility FS Granted

FS Granted

EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Ngo, Tamthom T.

LREP Crockett & Fish, Fish, Robert D.

CLMN Number of Claims: 9 ECL Exemplary Claim: 1

DRWN 33 Drawing Figure(s); 33 Drawing Page(s)

LN.CNT 2996

AB

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides various novel oligonucleotide analogs having one or more properties that make the subject compounds superior to conventional oligonucleotides for use in procedures employing oligonucleotides. The compounds of the invention are oligonucleotide analogs in which the furanose ring of a naturally occurring nucleic acid is replaced with an amino acid or a modified amino alcohol residue. Some embodiments of the novel compounds of the invention are particularly useful for the antisense control of gene expression. The compounds of the invention may also be used as nucleic acid hybridization probes or as primers. Another aspect of the invention is to provide monomeric precursors of the oligonucleotide analogs of the invention. These monomeric precursors may be used to synthesize the subject polynucleotide analogs. Another aspect of the invention is to provide formulations of the subject polynucleotide analogs that are designed for the treatment or prevention of disease conditions. Yet another aspect of the invention is to provide methods for treating or preventing diseases, particularly viral infections and cell growth disorders. The subject disease treatment methods comprise the step of administering an effective amount of the subject polynucleotide analogs for use as antisense inhibitors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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	FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 09:20:42 ON
	01 APR 2004
L4	O S NUCLEIC ACID (3A) SYNTHES? AM POLYMERASE ACTIVITY
L5	786 S NUCLEIC ACID (3A) SYNTHES? AND POLYMERASE ACTIVITY
L6	15 S L5 AND METHYLIMIDAZOLE
L7	15 DUP REM L6 (0 DUPLICATES REMOVED)
L8	3 S L5 AND METHYLMORPHOLINE
L9	3 DUP REM L8 (0 DUPLICATES REMOVED)
=> S	15 and oxazoline?
L10	0 L5 AND OXAZOLINE?
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